

Matrix of CMARP Work Team Products

Version: 10/19/98

	Lead Person	Monitoring Objectives	Conceptual Model and/or Listing of Hypotheses and Assumptions of the System	Monitoring Plan Elements	Research	Indicators	Links
1. Refine Goals, Objectives and Needs	Bellory Fong	N/A	N/A	N/A	N/A	N/A	N/A
2. Develop a Conceptual Framework	Fred Nichols Randy Brown	N/A	N/A	N/A	N/A	N/A	N/A
3A. Inventory Existing Monitoring Programs	Bruce Thompson	N/A	N/A	N/A	N/A	N/A	N/A
3B. Develop Monitoring Elements	See Elements 1 - 6						
	Larry Brown, Bruce Herbold, Serge Birk, Pete Rhoads						
1a. Bay-Delta Fish X-2 Relationships	Bill Bennett	Yes	Yes	Yes (not detailed)	Yes	No	Yes
1b. Bay-Delta Shallow Water Habitats and Watersheds	Josh Collins	Yes	Yes	Yes	Yes	Yes	Yes (links within CMARP not specified)
Monitoring and Research for Fishes in Shallow Water Habitats (subgroup of 1b.)	Mike Chotkowski	Yes	Yes	Yes	Yes	No	Yes
1c. Hydrodynamics and Sediment Transport	Steve Monismith	Yes	Yes	Yes	Yes	Yes	Yes
1d. System Productivity -- Small Invertebrates(see 2a.i. under Water Quality)	Wim Kimmerer						
1e and h. System Productivity -- Fishes & Large Invertebrates & Striped Bass	Kathy Hieb Ted Sommer	Yes	Yes, overall (not specific to species)	Yes	Yes	Yes	Yes
1f. Contaminants (see 2a.ii. under Water Quality)	Bruce Thompson						
1g. Delta Smelt	Bill Bennett	Yes	Yes	Yes	Yes	Yes	Yes
1i.i .Salmon-Bay-Delta Region	Pat Brandes Sheila Greene	No	Yes	No	No	No	No

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1i.ii Salmon- San Joaquin Region	Carl Mesick	Yes	Yes	Yes	Yes	No	Yes
1i.iii. Salmon- Sacramento Region	Rich Johnson	Not received					
1j. Resident Fish	Larry Brown	Yes	Yes	Yes	Yes	Yes	Yes
1k. Steelhead	Dennis McEwan	No	Yes	Partial	Partial	No	Partial (identifies existing monitoring programs)
1l. Fluvial Geomorphology and Riparian Systems	John Williams	Yes	Yes	Yes	Yes	No	Yes
1m. Benthic Invertebrates	Jim Harrington	Yes	Yes	Yes (specific sampling stations not identified)	Yes	Yes	Yes
Element 2: Water Quality	Leo Winternitz						
2a.i. Bay-Delta Region - System Productivity	Wim Kimmerer	Yes (the team doesn't necessarily agree with the CALFED objectives)	Yes	Yes	Yes	No	Yes
2a.ii. Delta Region - Contaminants	Bruce Thompson	Yes	Yes (incomplete)	Yes	Yes	No	Partial (identifies existing monitoring programs)
2a.iii. Delta Region - Drinking Water	Rich Breuer Phil Wendt	Not received					
2b. Sacramento Region	Tom Grovhoug	Yes	Yes	Yes	Yes	Yes	Yes
2c. San Joaquin Region	Charlie Kratzer	Yes	Yes	Yes	Yes	Yes	Yes
Element 3: Water Transfers	Dennis Letl	Yes	Yes	Yes	Yes	Yes	Yes

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Elements 4: Water Use Efficiency	Dennis Letl	Yes	Yes	Yes	Yes	Yes	Yes
Element 5: Watershed Management	Ann Dennis	Yes	Yes	Yes	No	Some	Some
Element 6: Delta Levees	Gwen Knittweis	Yes	Yes	Yes	Yes	Not specifically identified	Yes
3C. Develop a Process for Data Management	Karl Jacobs	N/A	N/A	N/A	N/A	N/A	N/A
3D. Develop a Process for Data Analysis and Reporting	Peter Stine Andrea Atkinson	N/A	N/A	N/A	N/A	N/A	N/A
3E. Category III Monitoring Institutional Process	Jeff Phipps	No product due					
4. Design a CALFED Focused Research Program	Larry Smith	N/A	N/A	N/A	N/A	N/A	N/A
5. Develop an Institutional Structure for CMARP	Margaret Johnston	N/A	N/A	N/A	N/A	N/A	N/A